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SCI-TECH NEWS

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OF THE
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DIVISION
SPECIAL
LIBRARIES
ASSOCIATION

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Winter 1962

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SCI-TECH NEWS

The Official
Bulletin Of
The Science-Technology Division
Special Libraries Association

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Division authors are invited to submit manuscripts for publication in SCI-TECH NEWS. Because of space limitations, articles should be limited to 1600 words and should be typed double-spaced on one side of the paper. Although every effort will be made to carry all valid articles received, space limitations may require some articles to be held. For subsequent publication: Copy deadline is March 1st., June 15th., Sept. 1st., and Dec. 15th., for Spring, Summer, Fall and Winter issues.

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History and Importance of Technical Report Literature, Part II

By JOHANNA TALLMAN, UCLA Engineering Library

The technical report literature became a serious documentation problem as a result of the accelerated research problems in the early 1940's. There was an urgent need to disseminate the information quickly, to the right people, in order to avoid needless duplication of work. The regular media of transmitting information, such as books and journals, were too slow and required too much final editing and publishing to get the information out. Reports, which could be duplicated economically and quickly through near-print processes in limited numbers, could be disseminated on a limited and channeled distribution basis to persons and agencies who could establish a need-to-know. This resulted in elaborate distribution guides such as the Standard Aeronautical Indexing System (SAIS), and the ASTIA Field-of-Interest-Register. In most cases recipients can receive only reports in those fields in which they have specific interests, i.e. similar contracts. There are some exceptions, notably those reports which are made available to the general public through the Office of Technical Services. These are considered to be of interest to commercial, industrial and other general users who may not have government contracts in those fields.

Another group of reports is also involved. These are the unpublished (near-print) and published reports being issued by educational, industrial and governmental agencies which are NOT the result of government contract or military research sponsorship. These include theses, experiment station reports, laboratory reports and similar unclassified publications.

Lists and Indexes of Governmental Scientific and Technical Reports

I. Agency: Office of Technical Services (OTS)
Publication issued: PB reports
Lists and Indexes:

A. Government Research Reports.

1. History and publication.
   Began with January 1946 issue, as weekly. Since July 1948 has been issued monthly. Each report is given a serial number, known as a PB number. This is needed to order the publication and to identify a report from indexes or other sources. The reports are not arranged by this number out by broad subject categories.
   From January 1946 to June 1949 this was known as the **Bibliography of Scientific and Industrial Reports** (BSIR);; from July 1949 to Sept. 1954, as **Bibliography of Technical Reports** (BTR.); and, since October 1954, as **U. S. Government Research Reports.**
2. Space and availability.
   a. Lists reports made available at cost to anyone, without security classification or need to-know restrictions.
   b. Reports are received from Federal civil and military agencies and from cooperating foreign governments, and from U. S. educational and industrial laboratories. The older issues listed many reports of information captured in enemy countries.
   c. Some items are available in original copies, but many are available only as photostats or microfilm copies, at relatively high prices.
   d. Where copies are listed as available from OTS, they can be obtained from local Dept. of Commerce Field Offices. (Los Angeles—1031 So. Broadway, Los Angeles 15).
   e. Each issue, beginning January 1959, also contains: Source index; Subject index; Number index (from other numbers to page on which PB report is listed or abstracted.)

B. Index, U. S. Government Research Reports.

1. History and publication.
   a. The title varies according to the title of the publication to which it is an index.
   b. Published separately for each volume, through v.22, at $1.00 each, through the Office of Technical Services.
   c. From v.23 through v.30 index was published in January and July issues of the parent publication. Must be removed in order to be bound with the appropriate volume.
   d. Beginning with v.31 (Jan—June 1959) indexes for each volume are published and sold separately, by G.P.O. Price varies.
2. Scope.
   a. By subject only, through vol.19.
   b. By subject and number (PB and AEC) listing, vol.20-30.
   c. By subject, number (all series), and source, vol.31 (Jan-June 1959) to date.

C. Special Libraries Association. Science-Technology Group. **Numerical Index to the Bibliography of Scientific and Industrial Reports, volumes 1-10, 1946-1948.** New York, Special Libraries Association, 1949.
   BSIR Table of pagination.
   Symbols.
   PB numerical index, and Errata.
   German patent number index.
   Japanese patent number index.
   Correlation with PB number.
   BIOS Final reports
   CIOS Evaluation reports
   CIOS Roman numeral series
   FD reports
   FIAT Final reports
   MDDC and AECD reports
   OSRD reports
   Classified German patent applications.
   Bibliography — Subject indexes, classified lists and correlations.

D. U. S. Office of Technical Services. **Numerical index supplement.**

1. History and publication.
   a. Published separately, to vols. 11-19, Jan. 1949-June 1953, or the **Bibliography of Scientific and Industrial Reports,** as PB 98050-S.
   b. Beginning with v.20 published with the **Index to Bibliography of Technical Reports** (now **Index, U. S. Government Research Reports)**
2. Scope.
   Arranged by PB number, referring to the vol. and page in the BTR (USGRR)

E. Special Libraries Association. Science-Technology Group. **Correlation Index: Document Series and PB reports.** New York, Special Libraries Association, 1953.

* Paper written April 1961.

1. Shows relationship of miscellaneous document series to PB numbers, in BTR volumes 1-17((Jan. 1946-June 1952)
2. Does **not** show correlation between PB number and the volume and page or BTR. You go from the document serial number to the PB number. Then you have to consult the **Numerical Index** to find the proper volume and page of the BTR on which you can find the complete entry.
3. This duplicates somewhat the correlations included in the **Numerical Index** through vol. 10, but includes a great many more document series which are not included in the **Numerical Index.**
4. Contents:
   Directions and symbols.
   Document series and PB reports.
   Key to series abbreviations.
   Key to issuing agencies.
   Source of research and development reports from the government.

F. Index to PB reports Listed in U. S. Government Research Reports.

1. Published by Technical Information Service, Washington, D. C. (private)
2. Monthly, in looseleaf form, to be interfiled in binder. Cumulates every six months and every year.
3. Began with index to vol. 19 no.1, January 1953, of the BTR.
4. Contents:
   Numerical index: PB reports and AEC reports, (with reference to vol. & page of USGRR)
   Correlations with PB numbers.
   Cooperating research laboratories.
   Author index. (2 alphabets: PB and AEC)
   Key to abbreviations.

G. Technical information Service. **Chemicals and Allied Products; Subject Index (Annotated to Bibliography of Scientific and Industrial Reports.** Pt. 1, Agricultural chemicals, 7.1-12, 1946-1949. Pt. 2. Analytical chemistry, v.1-13, 1946-1950.

1. **Subject** index, referring to PB number and volume and page of the BSIR.
2. **Numerical** index by PB number, giving cross references not only to vol. and page of BSIR but also to other numbered series, such as BIOS, OSRD.
3. Index to **authors,** agencies and companies.
4. **Correlations** with PB numbers (from other series)

II. Agency: Office of Scientific Research and Development (OSRD) Publication issued: OSRD reports
Lists and indexes.

A. U. S. Office of Technical Services.**OSRD Reports; Bibliography and Index of Declassified Reports having OSRD numbers.** June 1947.

1. Issued as PB 78000. The original stock is exhausted. Copies are available on microfilm at $2.00 or photostat at $7.00, from Library of Congress, Photoduplication Service, Publications Board Project, Washington 25, D.C.
2. Includes all OSRD reports having OSRD numbers assigned to them and which have been forwarded to the OTS and had no military security classification.
3. Arranged in three parts:
   a. Bibliography arranged by OSRD number with correlated PB numbers. Followed by vol. and page reference to the BSIR.
   b. Cross reference list by PB number, referring to OSRD number.
   c. Author and subject index, referring to OSRD number.
4. Note: These OSRD reports can be acquired by ordering them as PB reports from the Library of Congress, Photoduplication Service, as microfilm or photostat copies, at prices listed.

B. U. S. Library of Congress. Science Division. **A catalog of OSRD Reports.**

1. Divided into parts representing the divisions of the NDRC and the special groups of NDRC. Indexes have been prepared and published only for the first eight divisions (out of 23 Divisions, plus Committees).
2. Within each part the names of contractors are listed alphabetically following the Summary Technical Report, if one was issued. Under each contractor the reports are arranged by title. The final report, if it exists, is the first entry under a given contract.
3. In each part there is also a contract number index, contractor, OSRD number, report number, author and subject index.
4. There is a Cumulative Index, covering Divisions 1-5, by contractor, contract number, OSRD number, report number and author index, but not a cumulative subject index
5. The catalog parts are available from OTS as PB 104375s, at 50c each. Division 8 has no. PB 104375s9, dated Nov. 1952.

C. U. S. Office of Scientific Research and Development. **Microfilm Index.** Washington, 1946. Declassified and re-issued, 1960. (Summary Technical Report of NDRC)

1. Index of the technical laboratory and field reports and other reference material which appears in the bibliographies for the Summary Technical Report of NDRC.
2. Arrangement is by Divisions of NDRC, with subject category breakdowns. Has alphabetical subject index and Microfilm Reel Catalogue.

III. Agency: Library of Congress. Navy Research Section. (Now its Technical Information Division)
Publication issued: U reports.
Lists and Indexes.

Technical Information Pilot. (TIP)

1. History and publication.
   a. Issued by the Science and Technology Project(later Navy Research Section and ultimately the Technical Information Division) of the Library of Congress, under contract with the Office of Naval Research.
   b. Issued approximately weekly, from January 12, 1948, to June 2, 1953, from U1 through U26300.
   c. Replaced, in part, by ASTIA'c **Title Announcement Bulletin** (TAB)
   d. Microcards and index cards of each report was also issued. From U12300 through U16199 the microcards were distributed automatically to recipients of TIP, as an experiment. Thereafter they were available only on request by specific number.
2. Scope and arrangement.
   a. Annotated bibliography of unclassified reports of Navy contractors in the basic

METALLURGICAL SOCIETY CONFERENCES

This rapidly growing series of books affords a rapid and coordinated publication of scientific and technical information on various facets of metallurgy. Each volume contains the edited proceedings of a conference sponsored by the **Metallurgical Society of AIME.** The books are of uniform high quality and format, planned to cover the entire field of metallurgy. **A brochure giving a complete listing of the Metallurgical Society Conferences is available.**

MECHANICAL PROPERTIES OF ENGINEERING CERAMICS

By W. WRUTH KRIEGEL and HAYNE PALMOUR III. Proceedings of a Conference Conducted by the School of Engineering, North Carolina State College, March, 1960. A complete survey of current research on the characterization and technological control of the mechanical properties of ceramic materials used as structural components. **1961. 632 pages. $21.00.**

ADVANCES IN SPECTROSCOPY

Edited by H. W. THOMPSON, St. Johns College, Oxford. This is a series of surveys on recent progress in various branches of spectroscopy, pure and applied, atomic and molecular, emission and absorption. Articles vary in length, are authoritative and contain much instrumental, experimental and interpretive detail. Much of the material is illustrated by photographs and tables. **Volume 1: 1959. 363 pages. $12.50. Volume 2: Approx. 428 pages. Prob. $13.50.**

ADVANCES IN ELECTROCHEMISTRY AND ELECTROCHEMICAL ENGINEERING

Edited by PAUL DELAHAY, Louisiana State University, and CHARLES TOBIAS, University of California, Berkeley. This series was planned to make available authoritative reviews in the area of electrochemical phenomena and to bridge the gap between electrochemistry as a part of physical chemistry and electrochemical engineering. Volume 1, published in 1961, evaluates and reviews current problems of the electrochemist. Volume 2, to be published early in 1962, considers topics from the viewpoint of the electrochemical engineer. **Volume 1: 1961. 348 pages. $12.00. Volume 2: 1962. Approx. 320 pages. Prob. $11.00.**

CHEMICAL REACTIONS IN THE LOWER AND UPPER ATMOSPHERE

The Proceedings of an International Symposium arranged by Stanford Research Institute, 1961.

Edited by C. A. SCARLOTT, Stanford Research Institute.

A synthesis of advances in three major areas of atmospheric chemistry: ionspheric research, tropospheric and stratospheric geochemistry, and photochemical reactions and contamination. **1961. 400 pages. $14.00.**

ARGON, HELIUM, AND THE RARE GASES

Edited by GERARD A. COOK, Linde Company. This two volume survey of the properties, production and uses of the helium group elements, written by 15 specialists in their fields, covers the history, occurence, and physical and chemical properties (Volume 1), and methods of isolating, purifying, and handling (Volume 2), of this important group, the inert gases. Volume 1: **1961. 452 pages. $17.50.** Volume 2: **1961. 444 pages. $17.50**

TREATISE ON ANALYTICAL CHEMISTRY

Edited by I. M. KOLTHOFF, University of Minnesota, and P. J. ELVING, University of Michigan. Treatise on Analytical Chemistry is designed as a definitive source of information in analytical chemistry. The treatment is in three parts: Theory and Practice of Analytical Chemistry; Analytical Chemistry of the Elements; and Analysis of Industrial Products; with each part consisting of a varying number of volumes. **Send for brochure containing full information on TREATISE ON ANALYTICAL CHEMISTRY.**

PROGRESS IN POLAROGRAPHY
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Edited by PETER ZUMAN, Polarography Institute of Czechoslovakia, and I. M. KOLTHOFF, University of Minnesota. This book describes the progress made in polarography — particularly during the last ten years — in chapters written by specialists in the field. All phases of this important field will be covered; the book is dedicated to Jaroslav Heyrovsky, the originator of polarography. **Volume 1. Approx. 380 pages. Prob. $12.00. Volume 2: Approx. 428 pages. Prob. $13.50.**

NUCLEAR REACTOR FUEL ELEMENTS:
Metallurgy and Fabrication

Edited by ALBERT R. KAUFMANN, Nuclear Metals, Inc. The U. S. Atomic Energy Commission has sponsored publication of this book to encourage the wider dissemination of information on the technology of fuel element manufacture. Background information is included on reactor metals, nondestructive testing, the disposal of spent fuel, and the economics of nuclear power. **1962. 752 pages. $13.00.**

RADIATION CHEMISTRY OF POLYMERIC SYSTEMS

By ADOLPHE CHAPIRO, Laboratoire de Chimie Physique de la Faculte des Sciences de Paris. This volume, the 15th in the **High Polymers Series,** covers four aspects of the use of high energy radiation in polymer chemistry: radiation initiated polymerizations; radiation effects in solid polymers; radiation effects in polymer solution; radiation initiated graft copolymerizations. **1962. Approx. 718 pages. Prob. $20.00.**

Send for examination copies.

Send for examination copies.

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sciences (mathematics, physics, chemistry, electronics, etc.) and applied sciences(flight ordance, communication, personnel, etc.)

b. Entries are in serial order by U numbers, which are file and order numbers used to identify the reports.

c. Each issue also contains a Subject and a Source index.

3. Indexes.

In addition to the Subject and Source indexes in each issue, there have been published four annual subject indexes, for 1948 through 1951. These do not contain abstracts. No annual indexes are available for the 1952 and 1953 TIP's.

IV. Agency: National Aeronautics and Space Administration. (March 3, 1915-July 29, 1958, as National Advisory Committee for Aeronautics) NASA and NACA)

Publications issued:

By NACA	By NASA
Annual reports	Semi-annual reports (Administrative)
Administrative	
Administrative, incl. Tech. Reports	Reports. Issued through June 1959.
Reports	Replaced by Technical reports, July 1959.
By NACA	**By NASA**
Research memorandum	Technical notes
Technical Notes	Memorandum. Issued up through June 1959. Replaced by Technical memorandum. Classified. Some are later declassified and may be reissued as TN or TR.
Technical memorandums. (Translations of foreign articles)	Republication series. Issued through June 1959. Replaced by Technical translations, July 1959-
Wartime reports	Space activities summary. Looseleaf. Kept up-to-date with insertions.

Lists and Indexes

A. (NACA) **Research Abstracts.**
no. 1-130, June 15, 1961-Sept. 30, 1958.
Began as biweekly but became less frequent and irregular.
An announcement service of new publications and de-classified older reports. No author or subject approach and no cumulated indexes.
Superseded by:

B. (NASA) **Publications Announcement.**
no.1-6, Nov. 14, 1958-May 29,1959.
Title changed to **Technical publications Announcements, no. 7-June 30, 1959-**
Started irregularly. Became biweekly in January 1960.

C. **Index of NACA Technical publications.**
1915-1949. Classified subject.
Author index, 1915-1949.
1949-May 1951. Classified subject, with alphabetical subject & author ind.

June 1951 - May 1953.	Ditto
June 1953 - May 1954.	Ditto
June 1953 - -May 1955.	Ditto
June 1955 - June 1956	Ditto
July 1956 June 1957.	Ditto
July 1957 - Sept. 1958.	Ditto (Issued by NASA)

Superseded by:

D. **Index of NASA Technical publications.**
Oct. 1958 - June 1959.
July 1959 - June 1960.

E. **List of NACA reports, 1947,1951.**
Includes a list of Annual Reports, with report numbers included in each volume, through 37th Annual report, 1951, including Reports 1003-1058.
Beginning with 33d Annual Report, with Report no. 863, lists the Report number, title, author and price. Ends with Report 1058.

F. **List of Technical Notes, 1947-1953.**
Lists TN's in order of number, from 1012 - 2993.
Gives title and author. (TN's are free).

G. List of Technical Memorandums. Published in 1942. Arranged by TM number, from 1 - 1003.
Gives title, author and date.

H. Chrysler Engineering Library. **Subject and Author Index of the Technical Memorandums of the U. S. National Advisory Committee for Aeronautics.**
Rev. July 1944.
Arranged by subject, with author index.

I. **List of NACA Reports Reprinted as Wartime Reports.** June 1948. Arranged by previous code no.
Gives authors' surnames only.
For each entry gives the Wartime no. assigned. Where the original report has been superseded by a later report, that is also indicated.

J. **List of NACA Wartime Reports.** June 1948.
Arranged by the Wartime Report number, with cross reference to previous code number.
Also gives authors' surnames and superseded numbers, if any.

V. Agency: U.S. Air Corps (Air Force)
Publication issued: Technical Data Digest.

1. History and publication.

a. An abstract publication issued irregularly from 1930 to 1952 under various titles.

b. Publication was suspended between Apr. 1933 and Sept. 1935, and again between Oct. 1945 and June 1947. It was resumed with .12, dated July 1947.

c. Vol.16 (1951) was the last issued by CADO (Central Air Documents Office) Vol.17, no. 1-3 (Jan-Mar. 1952) were issued by ASTIA as Restricted.

d. Publication ceased with v.17, no.3. Replaced by ASTIA's **Title Announcement Bulletin,** as far as government-contractor reports is concerned.

e. Covers reports originating with private, commervial and governmental technical laboratories and considered to be of more general and nonclassified interest.

2. Indexes.

a. **Index to the Technical Data Digest.** Eight indexes were issued, beginning with an annual index for 1948, then changing to a semi-annual index for the remaining seven issues of the **Index.**

b. CADO issued all but the last, which ASTIA published to cover the period January-June 1952 and labeled "Restricted."

c. The **Index** is actually a title-announcement bulletin arranged alphabetically by subject and keyed to the abstracts in the Digest by number. The publications from which the

abstracts were made are listed at the back of each issue of the index.

VI. Agency: Armed Services Technical information Agency (ASTIA)

1. History and services.

a. Established by executive order of the Secretary of Defense in 1951. It is an outgrowth and merger of the Central Air Documents Office and the Navy Research Section of the Library of Congress (part of the Office of the Naval Research). It also added the documentation interests of the Army, but it does **not** represent the documentation interests of the National Aeronautics and Space Administration or the Atomic Energy Commission.

b. ASTIA is a tri-service agency. The Army, Navy, and Air Force contribute to its support. The Air Force acts as a managing agent to hire personnel, provide space, and perform other housekeeping functions.

c. ASTIA is responsible for the acquisition, cataloging, selective dissemination, recall and/or disposition, and storage, of technical documents which reflect the findings and advancements in all fields of research, development and scientific endeavor of interest to the National Defense.

d. The material is gathered from many sources. Most of it is in the form of progress reports, interim reports, final summaries, or other types of technical reports resulting from research projects conducted by military laboratories and by contractors to the Military Services. Some of it comes from the laboratories and by contractors to the Military Service. Some of it comes from the laboratories of colleges and research foundations.

e. ASTIA renders the following services:

1) Prepares and distributes a **Technical Absetrct Bulletin.**
2) Prepares and distributes abstract cards.
3) Makes reports available in complete text.
4) Provides general reference service on reports collection, including preparation of Report Bibliographies.
5) Prepares comprehensive bibliographies on a transfer of funds basis.

f. These services are available only to military organizations and to prime contractors of the Department of Defense engaged in research and development. There is no charge for most of its services.

g. Where to direct inquiries:

1) General inquiries to the main ASTIA office: Arlington Hall Station, Arlington 12, Va. Or to one of regional offices:
a) ASTIA New York Regianal Office
346 Broadway, Rm. 804
New York 13, N.Y.
b) ASTIA Los Angeles Regional Office
Building 1, Room 112
125 So. Grand Ave.
Pasadena, Calif.
c) ASTIA San Francisco Regional Office
Building 1, Wing 2
Oakland Army Terminal
Oakland 14, Calif.
d) ASTIA Dayton Regional Office
Building 275, Area A
Wright-Patterson AFB, Ohio

2) All requests for reports, report bibliographies and inquiries regarding Field-of-Interest Registers-to Arlington Regional Office.

3) All inquiries regarding comprehensive bibliographies, to the Reference Center, Technical Information Division, Library of Congress, Wash.

2. Publications.

a. **Title Announcement Bulletin (TAB)**

1) History and publication.
a) Superseded and replaced the TIP, Technical Data Digest and their indexes, although somewhat more limited in scope.
b) Issued in three forms: Unclassified, Confidential, Military.
c) The unclassified bulletins began with U-1, 13 March 1953 and ceased with U-133, 23 August 1957.
d) They were sent only to authorized recipients of ASTIA's services.

2) Scope and arrangement.
a) Unannotated listings of unclassified documents cataloged by ASTIA.
b) Arranged by classified subject groups in conformance with its Distribution Guide.
c) Each entry is given an AD number, which is used to identify and order the reports.
d) There are actually two groupings in each issue.
Those documents obtainable directly from ASTIA.
Those documents available from the issuing agencies on a specific limited distribution; as references to magazine articles which resulted from contact work.

b. **Technical Abstract Bulletin** (TAB)

1) History and publication.
a) Superseded the Title Announcement Bulletin.
b) Began with no U57-1, Sept. 1957. A new series begins with each year. U-58-1 . . . U59-24.
c) Beginning 1960 used a number to designate the quarter of the year. U60-1-1 through U-60-1-6; U60-4-6.
d) Published irregularly; several a month.

2) Scope and arrangement.
a) Abstracts of unclassified documents cataloged by ASTIA.
b) Arranged by subject groups conforming to its Distribution Guide.
c) Each Bulletin contains indexes by source (originating agency), subject and AD number, through 1959.
d) Beginning 1960 each issue has a numerical index only.

c. **Distribution Guide.**

d. **ASTIA Subject Headings.** 4th ed., 1959. Superseded by:

e. **Thesaurus of ASTIA descriptors.** 1960.

f. **Fields of Interest of Department of Defense contractors and other non-military organizations serviced by ASTIA.** 1959.

g. **ASTIA guidelines for cataloging and abstracting.** 1958.

3. Indexes.

a. **AD Numerical Index.**

1) Such indexes were published covering AD 1 - 95,000, Apr. 10, 1954-July 1957.

2) Refers only to the TAB number and the subject category number in which documents were listed. No bibliographical information.

b. **Technical Abstract Bulletin Cumulative Index.**

1) Descriptor and Source indexes to TAB issued quarterly.

2) The fourth quarter index will not be issued. Instead an annual cumulation will be issued covering the entire year.

3) Subject approach is based on Thesaurus of ASTIA Descriptors.

c. **Subject Index to Unclassified ASTIA Documents.**

1) Published by OTS, 1959, in 9 vols. as PB 151567.

2) Covers AD 1 - 75,000, but only those which are unclassified (about 40,000 documents).

3) Arranged alphabetically by ASTIA subject headings.

d. **Correlation Index of Technical Reports (AD-PB Reports)**

1) Published by OTS, 1958, as PB 151567s.

2) Is considered to be a supplement to the **Subject Index.**

3) AD numbers covered by the **Subject Index** are arranged numerically, with parallel columns giving coresponding PB number, and prices.

Week 9. April 11, 1961.

VII. Agency: U. S. Atomic Energy Commission (AEC)
Publications issued: ,

A. Nuclear Science Abstracts (NSA)

1. History and publication.
Began July 1948. Monthly.

2. Scope and arrangement.

a. Abstracting and indexing service devoted solely to the literature of nuclear science and technology.

b. Covers

1) Technical reports of the AEC and its contractors.

2) Technical reports of government agencies, universities, and industrial and independent research organizations in the U.S. and abroad.

3) The book, patent and journal literature, and translations thereof, on a worldwide basis.

3. Indexes.

a. Each issue includes subject, personal and corporate author and report number indexes. Also includes information on the availability of individual reports.

b. Cumulated quarterly, semi-annually and annually.

c. A cumulated report no., author and subject index for 1.1-4 (July 1948-50) is in vol. 4.

d. **Subject and Author Index, Volume 5-10, 1951-1956.** Govt. Print. Off.
e. A cumulated report no. index is issued annually as report TID 4000 (see below)
f. Two special subject supplements were issued to the annual index for vol. 12, to cover NSA vol.12, Supplements 1 and 2.
g. Index to vol. 12 includes "Comprehensive and basic books sponsored by the AEC."

B. New Nuclear Data.
1. 1952-56 published as NSA, no.24B, of vol. 6-10.
2. 1957 in issues 6B, 12B and 18B of NSA, with annual cumulation issued separately by the GPO.
3. 1958 data published in 1959 by GPO under title **1959 Nuclear data tables.**

C. Other publications.
1. Atomic energy facts. TID 7010. 1957.
2. Report announcement bulletin; unclassified reports for civilian applications TID 1901-1910, 1956.
3. Report number series used by the Technical Information Service in cataloging reports. 2d rev. ed. TID-85 (2nd Rev.). 1960.
4. Selected reference material on atomic energy. Geneva, 1955.
5. Unclassified bibliographies of interest to the atomic energy program, comp. by Paul E. Postell and Hugh E. Voress. TID 3043 (Rev. 1) 1958. Supp. 1 (Rev. 1). 1959.
6. Unclassified engineering materials list. A catalog of drawings, photographs, and specifications released by the United States Atomic Energy Commission. TID 4100. 1957-
7. What's available in the unclassified atomic energy literature. TID 4550 6th rev. ed. 1960.
8. Research reports. Price list, revised twice a year. Arranged by subject categories.
9. Public availability of reports abstracted in Nuclear Science Abstracts. 4th ed. TID 4000. 1960. 2v.

VIII. Reports on German and Japanese wartime industry.

A. Abbreviations and names of reports compiled by British and American teams of experts who visited Germany and Japan.
CIOS — Combined Intelligence Objectives Sub-Committee. (Anglo-American)
BIOS — British Intelligence Objectives Sub-Committee. (British)
JIOA — Joint Intelligence Objectives Agency. (U. S. Joint Chiefs of Staff)
FIAT — Field Information Agency, Technical (U. S. counterpart of BIOS)
BIOS/Misc. — American and Allied reports on Germany.
BIOS/MAP — American and Australian reports on Japan.

B. Indexes.
1. Gt. Brit. Stationery Office. Reports on German and Japanese industry. Classified lists of 18, 19 and 20. 1948-51.
a. These three lists comprise the complete catalog of these reports.
b. Arranged by large subject groups. Numerical indexes in back.
2. Gt. Brit. British Intelligence Objectives Sub-Committee. Technical index of reports on German industry. 1946-48. 6 vols. Although labeled an alphabetic subject index, it is really a catchtitle index in alphabetical order.
3. Gt. Brit. Dept of Scientific and Industrial Research. Reports on German engineering industry; BIOS, CIOS and FIAT series published between 1946 and 1949. 1953. Arranged by subject groups.
4. Greene, L. W. The German chemical industry; a bibliography of the chemical, metallurgical and process industries. The Author, 1950.
a. Lists reports from BIOS, CIOS, FIAT, NACA, OSRD, PB, and other sources, as magazine references.
Arranged by subject groups.
c. Includes index by PB, BIOS and FIAT numbers, name and subject index,
JIOA Subject index of scientific and technical reports. May 1949. 8 vols: 2 BIOS, 2 CIOS, 2 FIAT, 2 Misc. In each series, vol. 1 was unclassified, v.2, classified security.

IX. Captured Enemy Documents.

A. U.S. Air Material Command. Air Documents Division.
1. Primary mission was to process hundreds of tons of captured German Aeronautical documents, mainly technical, and to make such data available to aircraft industry, government agencies and educational institutions.
2. It is the successor to the Air Documents Research Center established in London during the latter days of World War II as a combined operation of the Air Force and the British and U.S. Navy.
3. Captured Japanese documents were later included in the program.
4. It was succeeded by the Central Air Documents Office.
5. A preliminary screening of the documents was made overseas and some 800,000 documents were shipped to Wright Field. Of these, approximately 55,000 were selected as being of air-technical interest, and the remainder were shipped to the Office of Technical Services for processing by that agency.
6. The captured material processes was made available for use as follows:
a. Catalog index card sets, deposited in libraries throughout the country. 300,000 cards, incl. entries by subject, author, source.
b. Desk catalogs.
Desk catalog of German and Japanese air-technical documents. 1947-48. 6v. in 7. Also three cumulative indexes by code and model series and subject.
c. Bibliographies of selected subjects.
d. Copies of documents, chiefly on microfilm.
e. Translations from a selected group.
7. The Air Technical Index (ATI) Project was set up to acquire and organize all current air-technical data, both foreign and domestic, and to disseminate these data to some 2500 agencies, with distribution restricted to the limits of the established fields of interest and need-to-know. ATI documents included the following:
a. All documents, irrespective of language, which deal with captured equipment and which have been published after 1 January 1946.
b. All air-technical documents, irrespective of date and language, which deal with sub-

jects other than captured equipment. Captured documents published prior to 1 January 1946 are included in the Index Project described in item 6 above.

8. Distribution of ATI material was accomplished by means of printed translucent sheets, each sheet including data on six documents of the same subject classification and of the same security classification. Similar information was also printed on Catalog Index cards printed on card stock to be cut into six individual cards.

B. References.

1. Weaver, Charles F. Report index on German aeronautical research documents. FIAT final report 1948. 1947. Office of Military Government for Germany, U.S. Also issued as PB 7855. (Translated titles of aeronautical reports issued in several German annuals and series.)
2. "Searching for PB collection for chemical information," by L. F. Lederman, J. Green and D. Graff. In: American Chemical Society. Literature resources for chemical process industries. 1954. p.477-486.

VI. Special handling problems.

1. Security.
2. Filing
3. Cataloging

Abbreviations of agencies and publications concerned with technical reports

AD	ASTIA document
AEC	Atomic Energy Commission (U.S.)
ASTIA	Armed Services Technical Information Agency
ATI	Air Technical Index
BIOS	British Intelligence Objectives Sub-Committee
BSIR	Bibliography of Scientific and Industrial Reports.
BTA	Bibliography of Technical Reports
CADO	Central Air Documents Office
CGD	Captured German Documents
CIOS	Combined Intelligence Objectives Sub-Committee
FIAT	Field Information Agency, Technical
JIOA	Joint Intelligence Objectives Agency
NACA	National Advisory Committee for Aeronautics
NASA	National Aeronautics and Space Adminstration
NDRC	National Defense Research Committee
NRS	Navy Research Section (Library of Congress)
NSA	Nuclear Series Abstracts
NSF	National Science Foundation
ONR	Office of Naval Research
OSRD	Office of Scientific Research and Development
OTS	Office of Technical Services
PB	Publication Board report (Office of Technical Services)
R&M	Report and Memoranda (Gt. Brit. Aeronautical Research Council)
SAIS	Standard Aeronautical Indexing System
STP	Science and Technology Project (Library of Congress)
TAB	Title Announcement Bulletin. Now, Technical Abstract Bullletin (ASTIA)
TID	Technical Information Division (Library of Congress; also AEC)
TIP	Technical Information Pilot
TISE	Technical Information Service Extension (AEC)
U	Unclassified TIP reports
USGRR	U. S. Government Research Reports

The Bibliography of this article will be sent by the author upon request.

BIBLIOGRAPHY DIGEST

Compiled by
MILDRED BENTON

AMPLIFIERS

495. Bibliography on low-noise amplifiers.
B. Gilbert. Israel, Tel-Aviv. Atomic Energy Commission, Dec. 1960. 38p. Rept. LS-87)

A bibliography covering the period January 1951 to July 1960 on low-noise amplifiers is presented, containing 159 references.

496. Microwave parametric amplifiers and related parametric devices. An annotated bibliography.
Barbara Ann Bryce. Downey, Calif., Autonetics, May 10, 1961. 269p. (Rept. EM-6644)

Covering for the most part the period from mid-1957 to April 1961, this 946-item bibliography is divided into two main sections: (1) those topics dealing directly with parametric amplification, and (2) those topics which treat of the closely related diversifications of the parametric circuit system.

CAPACITORS

497. Bibliography on capacitors.
In G.W.A. Dummer and H. M. Nordenberg, ed. Fixed and Variable Capacitors, p.260-281, New York, McGraw-Hill, 1960.

Important because, according to the author, there are no general bibliographies on electronic parts, and it is hoped that the references on fixed and variable capacitors will form a nucleus for such a bibliography. There are no annotations and the arrangement follows the subject sequence of the book of which the bibliography is a part.

498. Bibliography on power capacitors, 1956-1959.
POWER APP. & SYS. 53:31-35, Apr. 1961.

This R.A.E.E. Committee report lists 229 references, a list of periodicals from which they are taken, and an author index.

COPPER

499. Copper.
Washington, D. C., Department of Commerce, Office of Technical Services. Apr. 1961. 25p. (SB-458) — 10 cents.

Reports and translations are included on copper metal and alloys, copper compounds, copper wire, brass and bronze, and copper and bronze.

500. Copper and copper alloys: a survey of technical progress in 1960.
METALLURGIA 63:132-136, Mar.; 175-184, Apr. 1961.

In 236 references the following topics are covered: extraction and refining; foundry practice; metal-working techniques; mechanical and physical properties; electrical properties and applications; work in the fields of engineering (including machining); corrosion, finishing and plating, joining, powder metallurgy; physical metallurgy and metallography; analysis and testing; building and plumbing applications; and applications of Cu salts and compounds.

501. Oxidation of copper. A review of published data.
INST. METALS.J. 89:65-76, 1960.

Emphasis is given to work done in the last decade. There are 180 references.

502. Radiochemistry of copper.
F.F. Dyer and G.W. Leddicotte. Oak Ridge, Tenn., Oak Ridge National Laboratory, 1961. 59p. OTS

A review with 115 references.

DUST

503. Air pollution and purification.
Washington, D.C., Department of Commerce, Office of Technical Services, Feb. 1961. 10p. (SB-448) — 10 cents.

About 110 references are listed on problems and effects of air pollution, studies in levels of pollution, and air purification methods and equipment.

504. An annotated bibliography on interplanetary dust.
P.W. Hodge, F.W. Wright, and Dorrit Hoffliet. Cambridge, Mass., Astrophysical Observatory, 1961. (Smithsonian Contributions to Astrophysics, v1.5, no. 8) 111p. (Contract AF 19(604)5196) (AD-256 915)

Supplements, and, in some instances includes references from Bibliography on Meteoritic Dust with Brief Abstracts, compiled by Hoffleit (Harvard College Observatory Reprint Series II-43, 45p., 1952, now out of print). Available from GPO, 25 cents.

505. Bibliography of articles on filtration (and related subjects).
Cincinnati, Ohio, Snow Filtration Co., 1961? 16p.

References to articles appearing in 27 publications on filtration, filter media, dust collecting, air conditioning, air pollution, seiving, sifting and straining. Brief abstracts are included.

FERROELECTRICITY

506. Ferroelectric bibliography.
R.D. Hall. Mountain View, Calif., Sylvania Electric Products, Inc., Electronic Defense Laboratories, Mar. 10, 1961. 163p. (Rept. M351) (Contracts DA36-039-sc-85402) (AD-255 317) Available from OTS, $13.00.

This collection of literature, related to ferroelectric materials, is expanded and revised from a previous

bibliography. Over 1600 entries are included under the following subject headings: ferroelectrics; anti-ferroelectrics; theory; dielectric properties; spontaneous polarization, polarization reversal, and switching; electrical conductivity and breakdown; piezoelectric, electromechanical, and electrostrictive properties; thermal effects; Curie behavior and transitions; radiation and spectra; electro-optic properties; optical properties and polarized light techniques; magnetic resonance studies; misc. physical effects and properties; single crystals; ceramics; domains, films and thin sheets; crystal growth; sample preparation; solid reaction; compositional variation of properties; measurement apparatus; applications; and patents.

507. Ferroelectricity and ferromagnetism.
Washington, D.C., Department of Commerce, Office of Technical Services, Sept. 1960. 17p. (SB-434) 10 cents

PB report, AEC material, and translations are listed.

HYDROFOILS

508. An annotated bibliography of selected references on hydrofoil craft control and deep waves analysis.
Barbara Ann Bryce. Downey, Calif., Autonetics, Sept. 11, 1961. 52p., (Rept. EM-7276)

There are 178 alphabetically arranged references within two sections, nos. 1-116 being on hydrofoil craft control, and nos. 117-178 on deep waves analysis.

509. Hydrofoils, an annotated bibliography.
K.D. Carroll. Sunnyvale, Calif., Lockheed Aircraft Corp., Sept. 1960. 35p. (Spec. Bib. 60-36) (AD-244 916) (PB 171 502) OTS price $1.00.

There are 85 annotated references on design and testing.

INSTRUMENTATION

510. Instrumentation bibliography.
London, Eng., Gt. Brit. Ministry of Aviation, June 1961. 26p. (Rept. TIL/BIB/54) (AD-260 785)

Includes 142 references.

511. Instruments and methods of observation and instrument carriers. (A compilation of backlog abstracts for 1950-1959.)
Muriel F. Haas. METEOROL. ABS. & BIB. 10(Suppl.1):2241-2435, 1959. (Pub. Aug. 1961)

There are 901 annotated references, arranged by subject categories in accordance with an accompanying outline, and author and subject indexes.

512. Nuclear instrumentation. Literature search.
H.D. Raleigh and R.L. Scott. Oak Ridge, Tenn., U. S. Atomic Energy Commission, Office of Technical Information Extension, June 1961. 149p. (TID-3550, rev.1) Available at OTS, $2.75.

This bibliography includes 1,728 references on the design, construction, and application of instruments for radioactive environments.

513. Oceanographic instrumentation: salinity, temperature and sound velocity measurements. An annotated bibliography.
A.A. Beltran. Sunnyvale, Calif., Lockheed Aircraft Corp., Sept. 1960. 94p. (Spec. Res. Bib. 60-7) (AD-245 391) (PB 154 283) OTS price, $9.10.

This annotated bibliography of 208 references is primarily concerned with electronic instruments for measurement of salinity, temperature, and sound velocity in the deep ocean. Other equipment and instruments were included when their design or use was applicable to these measurements.

LUBRICATION

514. Lubricants, greases and hydraulic fluids.
Washington, D.C., Department of Commerce, Office of Technical Services, May 1961. 21p. (SB-459) 10 cents.

Lubricants in general synthetic lubricants, lubricating greases and oils, lubricant additives and hydraulic fluids are the subjects covered by about 200 references.

515. Lubrication review. A digest of the literature for 1959-1960.
MECH. ENG. 83:53-69, Apr.; 67-80, May 1961.

Developments in bearings and lubricants are noted in the 468 references compiled by M.B. Peterson (Part I) and M. Godet (Part II). A digest of 1958 literature appears in Mech. Eng. for October 1959, p. 56-59.

MEASUREMENT

516. Bibliography of measurement standards. A compilation. ISA Measurement Standards Division and National Bureau of Standards.
ISA J. 8:71-74, Feb. 1961.

132 references are arranged under subjects such as general administration, electrical measurements, electronics, temperature, strain gages, optics, miscellaneous —mechanical and nuclear radiation. NBS publications, numbering 43, are listed separately.

517. Bibliography of temperature measurements, January 1953 to June 1960.
Washington, D.C., National Bureau of Standards, Apr. 6, 1961. 13p. (Monograph 27) Available GPO, 15 cents.

Over 500 references mainly American, are arranged alphabetically by author under each year. No abstracts are given. The references are grouped under thermoelectric theory and calibration; thermoelectric, resistance, radiation, and expansion devices; nuclear applications of temperature measurement; and associated equipment and testing procedure.

518. Bibliography on altimetry, static pressure measurement and barometry.
Washington, D. C., United Air Lines, June 12, 1961, rev. Sept. 25, 1961. 13p. (Rept. F-780)

About 100 items are listed in column form giving sponsor of the reports, number, date, title, author and remarks (very brief, no annotations). The bibliography was compiled incidental to the work of the Altimetry Subcommittee of the Air Transport Association of America.

519. Bibliography on ground resistance and potential gradient measurements.
POWER APP. & SYS. 47:52-58, Apr. 1960.

Included in this bibliography are 193 titles with num-

erous abstracts of publications based on an exhaustive search of domestic and foreign literature. Arrangement is according to periodical, U.S. publications being listed first, followed by foreign material.

520. High temperature measurement and production — A bibliography.
J.H. Kennedy, C.J. Wenerich, et al. Livermore, Calif., California University, Lawrence Radiation Laboratory, Jly. 1961. 112p. (Rept. 6424) OTS $2.50.

Several hundred annotated references on measurement, production, and effects and properties of materials. Temperature about 1800°F is considered.

521. The measurement of electric power by precision methods and in special fields.
W. Philipp. ARCH. TECH. MESSEN no. 300, p.23-24, Jan. 1961.

In German. This literature survey of developments since 1954 has 32 references on measurement with compensators and at high frequencies.

522. The measurement of e/m. An annotated bibliography.
Tibor Vincze. Wright-Patterson Air Force Base, Ohio, Air Force Institute of Technology, May 1960. 52p. (NP 8912)

The 199 annotated references, covering the period 1897 to 1959, are grouped under the following headings: The nature of cathode rays, 1897-1929; The period of refinement, 1930-1949; and The period of high precision measurements, 1950-1959.

523. Measurement of temperature: advanced state-of-the-art bibliography.
J. Pearlstein. Washington, D.C., Diamond Ordnance Fuze Laboratories, Aug. 15, 1961. 27p. (Tech. Rept. 969) (AD-262 501) OTS price $2.60.

Only titles of papers, the authors and organizations that have conducted or sponsored the work are listed. The compilation is a rapid guide for surveying the current state of the art on temperature measurement and control.

524. Measuring microwave properties of ferroelectrics.
W.J. Gemulla. Mountain View, Calif., Sylvania Electric Products, Inc., Electronic Defense Laboratories, Feb. 10, 1960. 65p. (Tech. Memo M-246) (AD-236 755)

The literature (15 references) on microwave measurements is reviewed.

525. Preliminary bibliography of measurement standards technology.
INSTR. SOC. AM. PROC. 15, 5p., 1960. (Paper 56-NY60)

Twenty-one references are given on general administration; 43 on electrical measurements; 21 on electronics; 8 on temperature; 8 on strain gages; 5 on optics; 17 on miscellaneous mechanical measurements; and 9 on nuclear radiation. Paper given at 15th Annual Instrument-Automation Conference and Exhibit.

526. Surface area measurement.
P. Connor. INDUS. CHEMIST 37:178-182, 224-228, 1961.

A review with 129 references.

527. Temperature measurement with platinum-metal thermoelements.
METALL 15:34-40, Jan. 1961.

In German. A review of knowledge (nearly 100 references).

528. Thermocouples for high temperature measurement. A bibliography.
A.C. Foskett. Harwell, Eng., U.K. Atomic Energy Research Establishment, Jly. 1960. (Rept. 125)

On hundred and six references are given to publications dealing with thermocouples for high temperature measurement grouped under general theory and design, specific couples, applications, and auxiliary apparatus and circuits.

PLASMA

529. Generation and properties of thermal plasmas.
Jean E. Britton and Thomas B. Reed. Lexington, Mass., Massachusetts Institute of Technology, Lincoln Laboratory, Nov. 28, 1960. 6 p. (AD-250 956)

This bibliography of items between 1855 and June 1960 covers the literature of thermal plasmas in a state of equilibrim, at a pressure of 11 bar, in the temperature range from 7000 K to 50,000 K.

530. Guide to the literature on plasma oscillations.
W.M. Gottschalk. Newark, Dela., Delaware University, 1961? n.p. (Tech. Rept. 1) (Contract AT(30-1)-2440.

A guide (250 references) is presented to provide physicists and engineers an indicative program for approaching the technology of wave motion in plasma.

PLASTICS

531. Plastic concrete quality control.
W.R. Lorman. Port Huneme, Calif., Naval Civil Engineering Laboratory, Jan. 31, 1961. 82p. (Tech. Note N-395) (AD-252 861) (PB 155 114) OTS price $8.10.

A selected bibliography of more than 500 items, traces developments, during the past 60 years, in the area of concrete quality control.

532. Plastic pressure tubing and fittings. An annotated bibliography.
H.M. Abbott. Sunnyvale, Calif., Lockheed Aircraft Corp., Missiles and Space Division, Apr. 1961. 21p. (Spec. Bib. SB-61-15) (AD-256 269) OTS price $2.60.

This bibliography of 72 annotated references represents a search of the literature to aid in evaluating what type of plastic material could be used for tubing and fittings.

533. Plastics. An ASTIA report bibliography.
Arlington, Va., Armed Services Technical Information Agency, Aug. 1961. 698p. (AD-259 000) (OTS price $7.00)

References were selected from all unclassified documents cataloged by ASTIA from 1953 through 1960. Subject content is presented under the following headings: acrylics, adhesives cellulosics, coatings, elastomers, expanded plastics, epoxides, fibers and textiles, fluorophastics, heat resistant polymers, laminates, optical plastics, phenolics, polysters, polyethylenes, polymer solutions, polymers, polystrenes, resins, silicon base, vinyls, general and miscellaneous.

534. Plastics developments. A review of the literature for 1959-1960.
G.B. Jackson, H.G. Dikeman, and K.R. Nickolls. MECH. ENG. 83:42-51, Mar. 1961.

A review of materials, properties and methods of test, processing standards and education, and health and safety, with 410 references.

PULP AND PULPWOOD

535. Barkers and barking of pulpwood.
Lillian Roth and others. Appleton, Wisc., Institute of Paper Chemistry, 1960. rev.ed., 194p. (Bib. Ser. 190) $10.00.

Includes 787 references.

536. Bibliography on drying (pulp and paper).
Compiled by the Drying Committee Engineering Division, Technical Association of the Pulp and Paper Industry. TAPPI 44:154A-155A, Aug. 1961.

The nine sections cover all aspects of the drying of pulp and paper.

ROCKS

537. Notes on the history of experimental studies of elastic, especially dynamic, properties of rock.
Michele Auberger, Lorraine Burgin and J.S. Rinehart. Golden, Colo., Colorado School of Mines Research Foundation, Inc., May 10, 1960. 34p. Mi $3.00 Ph $6.30.

Includes 200 references. LC. TID 12316.

538. Sources of information on rock physics.
Lorraine Burgin. Golden, Colo., Colorado School of Mines Research Foundation, Inc., 1960-1961. 9 issues.

Citations to current literature are references. They cover physical properties of rocks and rock mechanics. The first four issues are TID-12321, parts I-IV; the fifth is UCRL-1300, the sixth UCRL-13002, the seventh UCRL-13008, the eighth UCRL-13012, the ninth UCRL-13015. To be continued.

Available from Library of Congress

TID 12321(pt.1)	Mi $3.00	Ph $6.30
(pt.2)	6.30	19.80
(pt.3)	3.30	7.80
(pt.4)	3.00	6.30

Available from OTS

UCRL-13000	Mi $1.13	Ph $3.60
13002	1.28	3.60
13008	1.82	5.60
13012	2.33	7.60
13015	1.82	5.60

RUBBER

539. Bibliography of rubber literature, 1955-1956.
Akron, Ohio, American Chemical Society, Division of Rubber Chemistry, 1960. 573p.

Over 7,000 citations arranged by subject. Extensive subject index and author index. Does not supersede previously published bibliographies.

SCATTER PROPAGATION

540. Backscatter literature survey.
G.H. Hagn, D.L. Nielson, and F.H. Smith. Menlo Park, Calif., Stanford Research Institute, June 1961. 376p.

A comprehensive bibliography, with abstracts, covering the period from the inception of the study of ionospheric backscatter (about 1928) through 1960.

541. Selected foreign references on scatter propagation of ultrashort waves, 1956-1960.
Robert McCollum. Washington, D.C. Library of Congress. Science and Technology Division, 1961. 87p.

The 214 annotated references comprise materials which fall into three broad catergories viz., theoretical investigation of the atmospheric scattering of ultrashort waves and closely relaed phenomena; practical applications and equipment such as antennas and output tubes; nd surveys of developments in scatter propagation research. More than half the references cited are Russian.

SEMICONDUCTORS

542. Bibliography on diffusion of impurity elements in compound semiconductors.
G.L. Pearson. Stanford, Calif., Stanford University. Electronics Laboratory, Apr. 7, 1961. 8p. (Tech. Rept. 1801-1) (Contract DA04-200-ord-1087) (AD-256 958) (OTS price 50 cents)

A total of 65 entries are grouped into six divisions according to their application to solids, semiconductors, and compound semiconductors, with brief introductory notes for each group.

543. Literature survey of selected semiconductor properties.
R.W. Sullivan, R.D. Seibel, and C.E. Lundin. Denver, Colo., Denver Research Institute, Dec. 1, 1960. 60p. (Sci. Rept. 1) (AFCRL-4) (Contract AF19 (604)7222) (AD-254 124) (PB-171 845) OTS price $1.75.

A literature survey was conducted concerning selected thermodynamic data of semiconductor materials. The data are compiled herein accompanied by their respective references (125). The data presented as a result of the search are as follows: (1) thermodynamic properties of Group IIA, IIIB, IVB, and VB elements; (2) thermodynamic properties of intermetallic compounds between Groups IIA and IVB and Groups IIIB and VB elements; and (3) distribution coefficients and solid solubilities of solute elements in silicon and germanium.

544. Optical properties of semiconductors.
T.S. Moss. New York, Academic Press, 1959. 279p.

A reference bibliography of over 600 items is included.

545. The photomagnetoelectric effect and photoconductivity in semiconductors.
V. Andresciani. ALTA FREQ. 29: 154-205. Apr. 1960.

In Italian. A general review which refers to literature up to 1957.

546. Polar semiconductors.
W.W. Scanlon. SOLID-STATE PHYS. 9:83-137, 1959.

A critical review of the literature (108 references) covering crystal properties, physical chemical propeties, and electrical and optical properties.

THORIUM

547. Analysis of uranium and thorium: a bibliography.
Kenji Motojima, Hiroshi Onishi, et al. Tokyo, Japan Atomic Energy Research Institute, 1959. 116p. (Rept. 4013)

A bibliography is presented, consisting of 714 references published 1946 through 1958 relating to the separation and determination of elements in thorium, uranium, their alloys, and compounds.

548. Analysis of uranium and thorium: a bibliography, II.
Kenji Motojima, Hiroshi Onishi, et el. Tokyo, Japan Atomic Energy Research Institute, Oct. 12, 1960. 91p. (Rept. 4017)

A supplemental bibliography is presented, consisting of 556 references published during 1959, relating to the separation and determination of elements in thorium, uranium, their alloys, and compounds.

549. Analytical chemistry of thorium.
D.I. Ryabchikov and E.D. Gol'braikh. Moscow, Publishing House of the Academy of Sciences, 1960. 296p.

A bibliography of 2,142 titles is appended.

550. Analytical chemistry of thorium. A bibliography.
M.R. Verma, Jitendra Rai, and Prabhu Dayal. J.SCI.IND. RES. (INDIA) 20A, Suppl. 1-24, Feb.; Suppl. 25-46, Mar. 1961.

Includes many references for the period 1940-1958.

551. Bibliography on the biological effects of thorium.
Eliot Hutchinson. Rochester, N.Y. Rochester University, Jan. 18, 1960. 48p. (UR-563) Available from OTS, $1.50.

A title list of 530 references.

552. Thorium, a bibliography.
M. Bloomfield. Canoga Park, Calif., Atomics International, Feb. 7, 1961. 10p. NAA-SR-MEMO-6108. Available from OTS, $1.00 (fs) 80 cents (mf).

109 references dealing with radiation effects on thorium metal. There are some references to physical properties, and some on production, preparation, determination, and reprocessing methods.

553. Thorium: production and properties of the elements. Bibliographic compilation.
Frankfurt am Main, Germany, Gmelin-Institut fur Anorganische Chemie und Grenzgebiete. Dec. 20, 1960. 199p. (AEC-BRD-C-08-1)

Introduction in German. References are in English. A bibliographic compilation is made of reports, conferences, journal items, books, dissertations, and patents relating to the production and properties of thorium. The 856 references are also tabulated according to report and patent numbers, sponsoring institutions, and authors.

VTOL-STOL

554. Preliminary study of V/STOL transport aircraft and bibliography of NASA research in VTOL-STOL field.
Staff of Langley Research Center. Washington, D.C., National Aeronautics and Space Administration, Jan. 1961. 131p. (D-624) Available from OTS $2.75.

All NASA papers to date concerning VTOL-STOL research are listed.

555. Review of VTOL design studies.
A.C. Adler and S.A. Harrington. Buffalo, N.Y., Cornell Aeronautical Laboratory, Aug. 1960. 132p. (BB-1367-H-1) (AD-246-160) (PB 156 288) $10.50, OTS price.

Includes 71 references.

556. VTOL-STOL aircraft.
Paris, France, Advisory Group for Aeronautical Research and Development. North Atlantic Treaty Organization. Mar. 1961. 161p. (AGARD Bib. 2, rev. ed.)

This list of about 1,000 annotated references covers the literature up to the end of 1960 (helicopters and on-ground-effect-vehicles excluded). Classification is by: general studies, aerodynamic problems, stability and control in hovering and transition flight, powerplants, test techniques, atmosphere, operational problems, loads and construction.

X-rays

557. A bibliography of X-ray studies of electronic components.
M. Kinney. Downey, Calif., Autonetics, Sept. 20, 1961. 53p. (EM-7274)

166 references many annotated, on radiography, a tool used by industry for nondestructive inspection and testing.

558. Small focal-spot X-ray generator using beta rays.
M. W. Chisholm and others. Cleveland, Ohio, Picker X-ray Corp., Waite Manufactoring Division, Inc., May 1960. 38p. (TID-6381) (Contract AT (11-1)-746) OTS, $6.30 (ph), $3.00 (mf).

There are 107 references.

559. X-ray diffraction studies on zirconium and zircaloy-2. A literature search.
M. S. Feldman. Aiken, S.C., E. I. du Pont de Nemours and Co., Savannah River Laboratory, May 1961. 44p. (DP-551) OTS price $1.00.

In this bibliography of 85 annotated references, literature data are included on the crystal structure, phase transition, preferred orientation, deformation characteristics, recrystallization, and effects of impurities.

560. X-ray literature list.
Mt. Vernon, N.Y., Philips Electric Instruments, 1960. 30p.

A list of 376 publications spanning the years 1930-1960.

DOCUMENTATION DIGEST

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ABSTRACTING & INDEXING

387. Amendment to proposed literature system (letter to the editor).
Gerhard M. Wolten. CHEM. ENG. NEW 39(45):5 Nov. 6, 1961.

The present journals should publish only abstracts, carefully written by the authors to prescribed standards. The full papers should go into a central facility under such procedures that copies can be provided quickly. —AMC

388. Cumulative indexing.
E. E. G. Searight. THE INDEXER. 2(3): 80-84 Spring 1961.

Describes methods used in indexing **Keesing's Contemporary Archives.** Discusses problems peculiar to cumulative and "real-time" indexing. Two pages of examples are given. —RJT

389. Indexing a classification scheme.
Ruth Archibald. THE INDEXER. 2(3): 103-104 Spring 1961.

Questions some statements in an article by J. Mills in the Autumn 1960 issue, such as the effect of a poor classification system on its own index. —RJT

390. Indexing a classification scheme.
J. Mills. THE INDEXER. 2(3):104-107 Spring 1961.

Answers questions raised by Ruth Archibald on p. 103-4 of same issue. Provides alternate methods of indexing related terms in the classification. —RJT

391. Indexing gramophone records.
E. T. Bryant. THE INDEXER. 2(3): 90-94 Spring 1961.

Techniques for indexing small and large personal record collections. Useful details of making entries under composers, performer(s), conductor, orchestra, or other desired factors are given. —RJT

392. The indexing of Chinese names.
H. D. Talbot. THE INDEXER. 2(3): 99-103 Spring -1961.

Difficulties and techniques in this work are discussed, including methods of translation and transliteration. A uscful bibliography includes several Chinese-English dictionaries. —RJT

394. New literature system? (letter to the editor).
S. W. P. Wyszkowski. CHEM. ENG. NEWS 39(39):5 Sept. 25, 1961.

The end-product of the processes now operating in chemical publication will be the elimination of printed journals. A small number of information pools will store microreproductions of the manuscripts, and will offer subscriptions to abstracting services covering restricted areas of subject-matter, together with reproductions of papers of interest. —AMC

395. Relative effectiveness of document titles and abstracts for determining relevance of documents.
A. Resnick. Science 134 (3484)1004-1005 Oct. 6, 1961.

Relevance of documents to work interest did not show any significant differences between the use of titles and of abstracts for their selection. —VM

396. The typography of indexes: some notes.
Kenneth Day. THE INDEXER. 2(3): 85-89 Spring 1961.

Provides common sense suggestions for the achievement of an attractive and practical index; includes choice of type and arrangement on the page. —RJT

397. The use of classification in book indexing.
D. W. L. Langridge. THE INDEXER. 2 (3): 95-98 Spring 1961.

Explains the advantages of using a classification of index entries to construct basic relationships. Suggests that as indexing progresses, entries be filed in a classified arrangement, leaving the alphabetization until the very end. —RJT

BIBLIOGRAPHY

398. Seven-year Plan for Bibliographical Work in the USSR.
UNESCO BULL. LIB. 15(3)148-50. May-June 1961.

A description of a plan for bibliographical work to be done by Soviet libraries and bibliographical institutions during the period 1959-65. —DTH

CATALOGING AND CLASSIFICATION

399. Catalog code revisions for serial publications.
Dorothy Comins. LIB. RESOURCES & TECH. SERV. 5(3): 220-224 Summer 1961.

A discussion with specific quoted examples from the proposed Catalog Code as applied to serials. —JCL

400. Experiment in the use of the revised code of cataloging rules.
Margaret Beckman. LIB. RESOURCES & TECH. SERV. 5(3): 216-220 Summer 1961.

The University of Waterloo, Waterloo, Ontario has been experimenting with the proposed new Code of cataloging rules since July 1960 with apparent satisfaction. —JCL

401. Practical experience with the ASM metallurgical literature classification.
J. Negus. ASLIB Proc. 13(10): 274-289 Oct., 1961.

Classification of internal reports at the British Iron and Steel Research Association. —FWL

402. The quantitative effects of changed catalog rules on the existing catalog.
C. Sumner Spalding. LIB. RESOURCES & TECH. SERV. 5(3): 198-206 Summer 1961.

To prepare for a new code of cataloging rules about 1964, each library should formulate plans best suited to meet its needs. Should the old catalog be continued or a new and second catalog be planned? —JCL

403. A study in the development of colon classification.
T. Tyaganatarajan. AM. DOCUMENT. 12(4): 270-278 Oct. 1961.

A study of the Indian Scheme of classification in two stages: 1) from its inception until the publication of the third edition in 1950, and 2) from 1950 to the present day. —MEM

404. The Universal Decimal Classifications.
Barbara Kyle. UNESCO BULL. LIB. 15 (2) 53-96 March-April 1961.

A study of the present position and future developments, with particular attention to those schedules which deal with the humanities, arts and social sciences. —DTH

405. The Universal Decimal Classification and Technical Information Indexing.
B. C. Vickery UNESCO BULL. LIB. 15(3)126-38, 147 May-June 1961.

A study of the criticisms of the UDC, comparisons with special classifications, and suggestions on how UDC may be developed to provide the facilities needed. —DTH

406. The Universal Decimal Classification in Brazil.
E. Nery da Fonseca. REV. DOC. (The Hague) 28(2): 67-69. May, 1961.

Use of the UDC is increasing in Brazil at the expense of the Dewey System. —RLS

COOPERATION BETWEEN LIBRARIES

407. Australian Advisory Council on Bibliographical Services.
H. L. White. UNESCO BULL. LIB. 15(2)84-6 March-April 1961.

The various functions of the AACOBS are described. —DTH

408. The Monteith Library Project; an experiment in library-college relationship.
P. B. Knapp. COLL. & RES. LIB. 22(4): 256-263, 284. July 1961.

Conducted under a grant from the Cooperative Research Branch of the U. S. Office of Education. "Presents only the setting in which the experiment is being conducted, its structure and organization, the procedures through which it is being implemented, the sequence of library assignments developed so far, and some of the general insights the project staff acquired in the process." —DBS

409. Regional Seminar on Bibliography, Documentation and Exchange of Publications in Latin America.
UNESCO BULL. LIB. 15(3) 139-43. May-June 1961.

A summary of the Seminar held in Mexico City, Nov. 21 to Dec. 4, 1960. English translation of the Spanish final report is available from National Science Foundation, Washington 25, D. C. —DTH

DOCUMENTARY REPRODUCTION

410. Copyright laws. (letter to the editor)
Richard D. Mayse. CHEM. ENG. NEWS 39(42):5 Oct. 16, 1961.

"If this (copyright) law is passed as it is now proposed, industrial research will suffer heavily . . . A research project cannot be held up until permission is granted to reproduce an article. I have written many such letters asking for permission to copy something, and it is not uncommon to have to wait 30 to 60 days for an answer . . . We are having enough trouble trying to store and retrieve literature promptly." —AMC

411. Document reproduction.
H. R. Verry. REV. DOC. (The Hague) 28(2): 70-72 May, 1961.

A section devoted to a review of new methods and materials. —RLS

412. Development in photoreproduction.
Loretta J. Kiersky SP. LIB. 52(6)320-1 July-Aug. 1961.

A review of equipment shown at the 10th Annual Microfilm Meeting and Convention of the National Microfilm Assoc. held in Chicago during April 1961 and the Business Equipment Exposition held in April in New York City. Includes readers, copies and cameras. —JPO

413. MIT's microreproduction laboratory.
P. Scott. IND. PHOT. 10(11): 44, 92-93, 95 Nov. 1961.

Describes the facilities for microreproduction at Massachusetts Institute of Technology. —MEM

414. More on copyright laws. (letter to the editor)
Harry Zimmer. CHEM. ENG. NEWS 39(48):5 Nov. 27, 1961.

Since most university and research laboratories, including those of the Federal and State Governments

are not open to the public, they, like industrial libraries will be unduly restricted by operation of the proposed copyright laws. Complete abolition of copying facilities without written authorization in advance would present a severe handicap to the accomplishment of government research work. —AMC

415. Photoreproduction.
G. Oster. AM. DOCUMENT. 12(4): 285-291 Oct. 1961.

Discusses the scientific basis of photoreproduction techniques. —MEM

416. Small-quantity report production using the diazo method.
R. E. Goode and J. B. Cooper. REPRODUCTION METHODS FOR BUS AND IND. 1(4): 12, 14, 24 Sept.-Oct. 1961.

Describes method for producing attractive reports when only a few copies are needed, with special emphasis on covers. —MEM

DOCUMENTATION-GENERAL

417. AGARDographs.
Elizabeth D. Connelly SP. LIB. 52(6) 315-318 July-Aug. 1961.

An explanation of the various documents issued by the Advisory Group for Aeronautical Research & Development written by the publications editor Executive-Documentation Committee AGARD-Nato, Paris. —JPO

418. Automation without fear.
J. H. Shera. ALA BULL. 55(9): 787-794 Oct., 1961.

A refutation of the alleged psychologic, economic and technologic fears which alienate the librarian from the machine. —RLS

419. Documentation in Poland.
J. Wepsiec. AM. DOCUMENT. 12(4): 279-284 Oct. 1961.

Describes the network of documentation services in Poland as reorganized in 1960. —MEM

420. Die Dokumentation der Dokumentation and Information in der Deutschen Demokratischen Republik (DDR)
R. Zekalle. REV. DOC. (The Hague) 28(2): 63-66 May, 1961.

A discussion of coded card documentation services available from the East German Institute for Documentation of the Deutschen Akademie der Wissenschaften zu Berlin. —RLS

421. Improving scientific communication.
J. A. MacWatt. SCIENCE 134 (3475): 313-6 Aug. 4, 1961.

The growth of the number of periodicals being published and the printing of indexing journals has created the problem of securing copies of single articles. Suggested solutions include the sale of reprints or reproductions by libraries or publishers. —VM

422. The International Federation for Documentation.
NATURE 192(4799): 218-220 Oct. 21, 1961.

A review of the 27th Conference held in London during Sept. 6-16, 1961. —RJH

DOCUMENTATION RESEARCH

423. Documentation and communication research or confessions of a Cleveland documentalist on the occasion of the American Library Association conference in that city.
Allen Kent. WILSON LIB. BULL. 35(10) 722-775, 778-781 June, 1961.

Discusses aspects of documentation with regard to analysis of source documents; terminology and subject control; analysis of questions. Describes program of the Center for Documentation and Communication Research. Author's premise is to show natural alliance between librarianship and documentation by examination of the "science" of the two disciplines. —PS

424. The Searching Question.
G. M. Dyson. CHEM. and IND. 1961, 1830.

Letter reminds that many papers containing new data still do not justify cost of printing **in extenso** as a primary publication; e.g.g. two papers reporting, respectively, 15 and 40 new chemical analogues of already well-documented series, much of the factual data must reappear in subsequent abstracts; D. asks "why not publish in the second form and save duplication?" **Chem. Abstracts** is experimenting with a process of direct data publication as "tabloid" abstract. —HO

425. The statistical method in indexing.
B. C. Vickery. REV. DOC. (The Hague) 28(2): 56-62, May, 1961.

Studies supplementing Luhn's work, on the computer analysis of word frequencies in texts, suggest that significant words for indexing can be derived, but that further refinement of the technique is necessary. —RLS

INFORMATION STORAGE & RETRIEVAL

426. Adapting Machine Sorted Punched Card Systems to Hand Sorting and Coding.
Stanley Kirschner. J. CHEM. ED., 38, 526-7 (Oct. 1961)

A revised IBM card is described which allows punching and interpreting a card number and typing title and abstract information while the lower part of the card comprise the program form, this eliminating the separate program forms. —MCP

427. ASTIA's retrieval system: An interim appraisal.
W. W. Barden. ASLIB. PROC. 13(10): 263-273 Oct., 1961.

Use of descriptors in the indexing of reports, development of a thesaurus, and retrievals of information through computer searching of magnetic tape. —FWL

428. Auswertung meteorologischer Literatur, insbesondere unter Verwendung maschineller Verfahren (Evaluation of meteorological literature, especially with application of mechanical devices).
G. R. Haake. Z. METEOROL. 11(9):273-279, Sept. 1967.

Describes a simple, inexpensive, mechanical sorting procedure using center-punched cards for meteorological literature. (Abstracted in METEOROL. & GEOASTROPHYS. ABS., 12(4):680 April 1961.) —RLS

429. Baseball: an automatic question-answerer.
B. F. Green, Jr. et al. WESTERN JOINT COMPUTER CONF. PROC., 1961 (N. Y.: Institute of Radio Engineers, 1961) 219-224.

Baseball in a computer program that answers questions phrased in ordinary English about stored data. Details of the theory and construction of the program for the experiment are given. —RJT

430. A comparative study of three systems of information retrieval: a summary.
N. D. Stevens. AM. DOCUMENT. 12(4): 243-246 Oct. 1961.
Reports on detailed study of three approaches to the same material: a punched card file, a handbook reproduced from that file, and the library-cataloging reference approach. —MEM

431. A comparison of dictionary use within two information retrieval systems.
C. K. Schultz, P. D. Schwartz and L. Steinberg. AM. DOCUMENT. 12(4): 247-253 Oct. 1961.
Uses the same computer routines to compare two dictionaries of different sizes as to their use in building their input file and analyzes data generated. —MEM

432. Information retrieval. (letter to the editor and response)
P. A. Porecha. CHEM. ENG. PROGR. 57(11): 23, 26 Nov. 1961.
Can the information-retrieval information in CHEM. ENG. PROGR. be printed separately on stiff paper? Not on stiff paper, but beginning with the January issue all keyword index/abstracts will be printed together immediately following the Table of Contents for ease of clipping. —AMC

433. Info retrieval flexible; it fits many situations. (letter to the editor and reply)
(Mrs.) W. du Plessis. Rollin Morse. CHEM. ENG. PROG. 57(10): 24-25, 28 Oct. 1961.
Can the A.I.Ch.E. information retrieval system be used for journal papers in a small technical library? Can it be linked with UDC?
It can be so used. Staff members should be supplied with copies of the A.I.Ch.E. Thesaurus. —AMC

434. Information retrieval . . . some applications for smaller libraries.
Claire K. Schultz. WILSON LIB. BULL. 35(10) 782-784 June, 1961.
Description of a few current research activities demonstrates how information retrieval techniques might become available to all librarians, at least for certain jobs. —PS

435. Information retrieval; state of the art.
D. R. Swanson. WESTERN JOINT COMPUTER CONF. PROC., 1961 (N. Y.: Institute of Radio Engineers, 1961) 239-246.
Examines the degree of searcher acceptance or rejection of an IR system. Suggests that overall effectiveness must include this parameter for true measurement. Reviews the theoretical objectives of any IR system and the present methods for achieving them. —RJT

436. Mechanical storage and retrieval of organic chemical data: identification of structural features.
G. Malcolm Dyson and Elizabeth F. Riley. CHEM. ENG. NEWS 39(47):74-76, 78, 80 Nov. 20, 1961.
Organic structures, put on magnetic tape in the Dyson-Taylor-Patterson nomenclature, can be searched by an IBM 1401 digital computer for specific structural features. —AMC

437. MEDIA — a relatively low cost approach to mechanized retrieval.
V. Tate. PHOTO METHOD FOR INDUSTRY 4(9): 35, 99, 104 Sept. 1961.
Describes Magnavox Electronic Data Image Apparatus, a low cost unitized film document storage and retrieval system. —MEM

438. A paradigm for a retrieval effectiveness experiment.
H. Bornstein. AM. DOCUMENT. 12(4): 254-259 Oct. 1961.
Recommends criterion of retrieval effectiveness and experimental procedures to assess the effectiveness of different indexing systems. —MEM

439. The Searching Question.
A. D. Booth, CHEM. and IND. 1145-7, 1961.
Essay review of A. Kent (ed.), Information Retrieval and Machine Translation, commenting that "automation has been under continuous development for the same 3000 year period as information storage;" that the present age of paper is also one of human discontent; and praising the volume's comprehensive index. —HO

440. A screening method for large information retrieval systems.
R. T. Moore. WESTERN JOINT COMPUTER CONF. PROC., 1961 (N. Y.: Institute of Radio Engineers, 1961) 259-274.
This paper is addressed primarily to describing a method for reducing the excessive processing times sometimes encountered in large information retrieval systems. Two tools are suggested: (1) a screening system to allow multi-level processing of materials and (2) preprocessing of the files to allow block rejection of documents now answering a retrieval request. —RJT

441. Semantic road maps for literature searchers.
Lauren B. Doyle. J. ASSN. COMPUTING MACHINERY 8(4):553-578 Oct. 1961.
Natural characterization and organization of information can come from analysis of frequencies and distribution of words in libraries. —BBL

442. A study of methods for systematically abbreviating English words and names.
Charles P. Bourne and Donald F. Ford. J. ASSN. COMPUTING MACHINERY 8(4): 538-552 Oct. 1961.
Most of the thirteen basic techniques were tested on a sample of several thousand subject words and proper names. Dropping out every second letter seemed to be the most effective technique. —BBL

443. Technical information flow patterns.
M. M. Kessler. WESTERN JOINT COMPUTER CONF. PROC., 1961 (N. Y.: Institute of Radio Engineers, 1961) 247-258.
A study of the bibliographies of a large number of articles in physics and electrical engineering indicates that definite patterns exist for the flow of technical information. —RJT

444. Time-binding by machine.
WILSON LIB. BULL. 35(10) 770-771 June, 1961. (excerpt with permission from Francis Bello's article "How to Cope with Information," in "Fortune" magazine, Sept. 1960.)
Brief comments on information retrieval systems and their manufacturers. —PS

445. Western Reserve up-dates information retrieval center.
BUSINESS AUTOMATION. 6(1):42-43 July 1961.

A news story describing the introduction of the expanded searching capabilities at Western Reserve, mentions no other cooperative projects. —RJT

LIBRARY ADMINISTRATION

446. Budget and cost control in research and development.
T. L. Wilson. RESEARCH MANTGEMENT 4(2): 95-105. Summer 1961.

Organization chart shows "Library & Patent" as staff office under a Research Center Manager, who reports to Director, Research and Development. —DBS

447. Circulation control.
Helen T. Greer. WILSON LIB. BULL., 36(3) 248-249 Nov. 1961.

Reviews **Study of Circulation Control Systems: Public Libraries** by George Fry & Associates, Inc. and **Report on a survey made of book charging systems at present in use in England** by F. N. Hogg et al. —PS

448. A college president and the standards for college libraries.
J. S. Coles. COLL. & RES. LIB. 22(4): 267-270, 296. July 1961.

The president of Bowdoin College, Brunswick, Me., in reassessing the implementation of the **ALA Standards for College Librarians** emphasizes that "these standards are for the present rather than standards for the future. They are representative of the average rather than the progressive." Table of selected operating statistics for his college library shown. —DBS

449. Describing and analyzing the librarian's job.
George W. Prevof. SP. LIB. 52 (8) 450-51 Oct. 1961.

A description of the Metropolitan Life Insurance Company's preparation of any job analysis, using library position as an example. —JPO

450. How one company describes and pays librarians.
G. Lechner. SP. LIB. 52 (8) 455-458 Oct. 1961.

Description of a thorough job analysis which endeavors to place library job in the company's structure with provision for keeping the evaluation up-to-date. —JPO

451. Management Methods in Libraries; A Symposium.
Bull. Med. Lib. Assoc. 49, 514-40 (1961)

Can you satisfactorily run a library on business lines?
a. Administrator's viewpoint; Kenneth S. Allen.
b. Standards of performance in hospital libraries, J. J. Clopine.
c. Space management and layout; A. N. Brandon.
d. Demand copying; E. H. Morse.
e. Office machines and appliances; J. M. Connor.
f. Procedure analysis; M. Kennedy. —HO

452. On issuing a faculty library handbook.
Robert M. Lightfoot, Jr. WILSON LIB. BULL., 36 (3) 234-236.

Brief commentary on experiences along with remarks about the flood of requests for copies. He summarizes the sections included in the handbook. —PS

453. Pricing the librarian's job.
Dorothy E. Everett SP. LIB. 52 (8) 452-455 October 1961.

A description of the complicated steps in the job analysis and the establishing of a salary structure for a large library organization, in this case, the University of California. —JPO

454. The role of the library trustee.
Pat McNamer. WILSON LIB. BULL., 36 (3) 227-230 Nov., 1961.

Abridged version of a talk. Lists functions, comments on meaning of the work and admonishes the trustee to consider the library as an integral part of the community educational resources. —PS

455. Second International Congress on Medical Librarianship.
June 16, 1963. Plans. BULL. M. L. A. 49: 643-8 (1961)

456. Simple calculations show that—photocopying saves money.
R. R. Shaw. ALA BULL. 55 (9): 802-4, Oct., 1961.

Facts and figures to show that manual clerical routines are more profitably done by photographic processes. —RLS

457. Stack use of a research library.
H. J. Dubester. ALA BULL. 55 (10). 891-893, Nov., 1961.

Report on a pilot study of stack use at the Library of Congress. —RLS

458. Status and responsibilities of academic librarians.
R. H. Seibert. COLL. & RES. LIB. 22 (4): 253-255. July 1961.

To attain faculty status the same qualitative standards as are expected of the faculty at large should be met. Standards include: educational, intellectual, professional, institutional. —DBS

459. Status symbols and the librarian.
F. Allen Briggs. WILSON LIB. BULL., 36 (3) 231-233 Nov. 1961.

Gives examples of how libraries use machines, picture windows, furniture, mass merchandising techniques, tv etc. to do their work better. —PS

460. What management expects of its library function.
Elmer W. Earl, Jr., SP. LIB. 52 (8) 448-450 Oct. 1961.

Outline of various opinions among insurance companies on the position the library plays in the operation of the company's business. —JPO

461. What to buy first: reference tools for the small budget library.
Sidney L. Jackson & Elnora M. Porteus. WILSON LIB. BULL., 36 (2) 134-138 Oct. 1961.

Suggestions for encyclopedias and dictionaries, as well as other reference books are given. There are comments on open entries, librarian's tools. Costs are listed. —PS

LIBRARY EDUCATION & TRAINING

462. Advancement in the library profession.
John F. Harvey. WILSON LIB. BULL., 36 (2) 144-147 Oct. 1961.

Study of advancement in typical careers of chief college librarian, and chief public librarian is presented. Comments on age, experience, religion, intelligence, publications, affiliations, and sidelights round out the article. —PS

463. An experiment in special library education.
Robert R. Douglas. SP. LIB. 52 (6) 308 July-Aug. 1961.

An experiment in special library education being conducted by Texas Chapter SLA in cooperation with the director of the U. of Texas Graduate Library School. Chapter members and volunteer faculty members conducting a two-semester-hour course in special library techniques carrying credit toward a M.L.S. degree. —JPO

464. Into the mainstream.
Lawrence Clark Powell. SP. LIB. 52 (6) 295-299 July-Aug. 1961.

Keynote address 52nd annual SLA convention at San Francisco by Dean of UCLA Graduate Library School. Background information on the UCLA course and inspiring message to all librarians to become transmitters of ideas, to be more than technicians, to become a part of the "mainstream" of intellect and spirit which is a universal resource. —JPO

465. A librarian files to learn, or Boston Sci-Tech Group's course for beginning librarians.
Natalie Nicholson. SP. LIB. 52 (6) 300-307 July-Aug. 1961.

A description of the Boston Chapter's course to aid untrained persons involved in a library situation and a group of letters expressing opinions, pro and con, the advisability of such training and its possible effect upon the profession. More comments in letter form appeared in SP. LIB. 52 (8) 474-476 Oct. 1961. —JPO

466. The reference librarian.
W. Roy Holleman. SP. LIB. 52 (6) 314 July-Aug. 1961.

Qualities necessary in the effective, competent reference librarian as outlined by a member of the staff of USC Graduate Library School. —JPO

467. Social epistemology, general semantics and librarianship.
Jesse Shera. WILSON LIB. BULL. 35 (10) 767-170 June 1961.

Concerns concept of "social epistemology" and its relation to librarianship. Comments on fundamental aims librarianship and how this new concept is interrelated with it. General semantics contributes the very foundations of the librarian's theoretical knowledge. —PS

468. The technical library: a syllabus of service.
Margaret N. Sloane. SP. LIB. 52 (6) 309-313 July-Aug. 1961.

A description of a formal, highly organized in-training library program for the large staff of Space Technology Laboratories, Inc. in Los Angeles. Course involves training at all levels, scientific as well as clerical.—JPO

469. What does it take to make a good special librarian?
Grieg Aspnes, et al. SP. LIB. 52 (6) 331-2 July-Aug. 1961.

A statement by the SLA Education Committee on what SLA can do in the struggle to educate more and better qualified librarians to meet future needs. —JPO

LIBRARY PLANNING

470. "Commodity, firmness and delight": The library architect.
Vincent Werner & Harold Hacker. WILSON LIB. BULL., 36 (2) 148-151 Oct. 1961.

The first author explains "what you should know about him." He comments on qualifications and education, service, and work evaluation, concludes with the client's responsibilities. The second portion covers "what you should expect of him." There are remarks on preliminary plans, specifications, award of contracts, contribution supervision. —PS

471. Future of library service: demographic aspects and implications.
Frank L. Schick, Issue Editor. LIB. TRENDS 10 (1) July, 1961. (Entire issue.

Concerns future services and the first article "Population trends — prologue to library development" by P. M. Hauser and Martin Taitel is thought-provoking. —PS

472. A half million dollars' worth of experience.
June Biermann. WILSON LIB. BULL., 36 (2) 152-154 Oct. 1961.

Construction and planning details are stressed. —PS

473. A librarian's library.
Ruth Shapiro. WILSON LIB. BULL., 36 (3) 246-247 Nov. 1961.

Describes facilities at ALA headquarters. —PS

474. Planning the new library: the Johnson's Wax Library.
James E. Anderson. SP. LIB. 52 (6) 323-327 July-Aug. 1961.

Description of the new Johnson's Wax Library which replaces the outgrown "tower library" described in the December 1961 Special Libraries. —JPO

475. Putting the library layout on paper.
John L. Gardner. WILSON LIB. BULL. 36 (2) 154-155 Oct. 1961.

Advice on planning is given with fine suggestions. —PS

PROFESSIONAL ASSOCIATIONS AND SOCIETIES

476. Documentation on International Organizations Meetings and Publications.
G. P. Speeckaert. UNESCO BULL. LIB. 15 (3) 144-7 May-June 1961.

The work of the Union of International Associations on the subject in the title is described in detail. —DTH

477. Planning and Design Institutes, Laboratories, and Higher Educational Institutions in and near Moscow.
NLL Trans. Bull. 3 (4) 284-319 April 1961.

A list of nearly 250 entries. Each entry gives (1) the transliterated official abbreviation and/or name of the institution (2) translated name of institution (3) address and (4) telephone number. —DTH

SPECIAL LIBRARIES AND INFORMATION SERVICES

478. British Central Film Library — New Releases.
CHEM. and IND. 1961. p. 1956. Oct. 7.

Among new films available are: (1) An Introduction to Ion Exchange; (2) The Clean Heat Treatment of Metals; (3) Fire Prevention — Know Your Fire Hazards; (4) The Nature of Glass; (5) Zinc Controls Corrosion. —HO

479. Cost research on a library service.

L. Taylor. ASLIB. PROC. 13) (9): 238-248 Sept., 1961.

Detailed analysis of the cost of library service in a company of 2500 employees. —FWL

480. Enlightenment by Film.
D. M. Freeland, Chem. and Inc. 1961, 1264-66.

Discussion of development of industrial films concerned with the chemical industry; use in education, and in research; gives address list of 12 British film libraries. —HO

481. The Harvard undergraduate library of 1773.
J. W. Kraus. COLL. & RES. LIB. 22 (4): 247-252. July 1961.

Book collection breakdown: Theology, 30%; History, 19%; Literature, 15%; Science, 10%. Some outstanding items cited. —DBS

482. The importance of professionalism for the special librarian.
Marjorie Griffin. SP. LIB. 52 (8) 462-3 Oct. 1961.

How the special librarian can display the qualities generally attributed to the professional person in his or her daily work. —JPO

483. Improve the Propagation of Technical Literature.
E. Morozova. NLL TRANS. BULL. 3 (4) 320-7. April 1961.

This is an English translation of a Russian article in BIBLIOTEKAR 1960 (10) 5-7, which describes the work of GPNTB SSSR (State Public Scientific Technical Library of the USSR) and other technical libraries. —DTH

484. Information and Bibliographical Work of TsNTB Po Stroitel'stvu i Arkhiteckture (Central Scientific and Technical Library for Building and Architecture).
G. V. Il'chenko. NLL TRANS. BULL. 3 (No. 6) 504-17 June 1961.

This is an English translation of a Russian article in SOVIET-SKAYA BIBLIOGRAFIYA 1961 (6) 20-25 describing the work of the library as consisting of: 1. The supply of current bibliographical information about books and articles in Russian and foreign periodicals, 2. The production of bulletins on particular topics and bibliographical reviews at the request of institutes and 3. The provision of bibliographical service for engineers and technicians in research institutes and other establishments. —DTH

485. Libraries of the Academy of Sciences of the USSR.
NLL TRANS. BULL. 3 (5) 395-428 May 1961.

A list of the 155 larger libraries of the Academy, with the following information: (1) transliterated name of library, (2) translated name, (3) address, (4) telephone number, and (5) size of holdings. —DTH

486. The National Reference Library of Science and Invention.
NATURE 191 (4789): 733-34 Aug. 12, 1961.

Comments by Leslie Wilson, Director of ASLIB and J. B. Farradane, Honorary Secretary, Institute of Information Scientists on the recent article on the Library in the July 1 issue of NATURE. Both comment on the need and training of information officers to staff the library. —RJH

487. O'Shaughnessy Library.
C. L. Eddy. COLL. & RES. LIB. 22 (4): 264-266, 304. July 1961.

College of St. Thomas, St. Paul, Minn.'s new library, a gift from Mr. and Mrs. Ignatius A. O'Shaughnessy. —DBS

488. Selling the company library to management.
Harold S. Sharp. WILSON LIB. BULL. 36 (1) 48-9. Sept. 1961.

Very practical considerations are given. —PS

489. UNESCO LIBRARY ACTIVITIES. 1959-60.
UNESCO BULL. LIB. 15 (3) 119-25 May-June 1961.

A listing of (1) UNESCO field activities in Africa, Europe, Latin America, Middle East, South Asia and the Far East; (2) meetings, conferences and seminars organized by or with financial assistance from UNESCO; (3) library fellowship holders and (4) bibliographical, library and reference works published by UNESCO or under its auspices. —DTH

490. UNESCO's Programme for Libraries and Related Services. 1961-62.
UNESCO BULL. LIB. 15 (3) 113-18 May-June 1961.

A description of UNESCO's activities include: Financial support of international organizations, technical assistance and provision of equipment for library development in the less developed countries, international exchange of publications, coordination of international activities in scientific documentation and terminology in natural sciences, etc. —DTH

491. The what, when, where, why and how of a "profession."
Howard L. Martin. SP. LIB. 52 (8) 459-461. Oct. 1961.

An outline of the requirements of a profession and the consideration of whether business can ever qualify as a profession. —JPO

TECHNICAL PROCESSES

492. Applications of machines to library techniques: periodicals.
A. McCann. AM. DOCUMENT. 12 (4): 260-265 Oct. 1961.

Reviews library operations related to periodicals and shows how these operations have been converted stepwise into machine operations. —MEM

493. Circulation control study completed.
Gladys T. Piez. SP. LIB. 52 (6) 318-9 July-Aug. 1961.

Results of the study, Circulation Control In Libraries, conducted for the Council of Library Resources by Geo. Fry and Associates in Chicago. Covers objectives of the study and describes the manuals which resulted from the work. —JPO

494. Planning the new library: The Meade Corporation Library.
Ann L. Howard. SP. LIB. 52 (8) 465-470 Oct. 1961.

A detailed description of the new Meade Corp. (paper company) library in Chillicothe, Ohio. 3,360 sq. ft. floor space servicing 2500 people. —JPO

TECHNICAL WRITING & EDITING

495. Apply quality control to engineering writing.
R. S. Blicq. IRE TRANS. ENG. WRIT-

ING & SPEECH. EWS-4 (2): 57-51 May 1961.

Describing the function of the technical editor as "inspector" in a "quality-controlled" engineering writing program. Methods of establishing standards and specifications are given. —RJT

496. Better writing: new answers for an old problem.
J. B. Bennett. IRE TRANS. ENG. WRITING & SPEECH. EWS-4 (2): 44-46 May 1961.

Suggests that instruction in the mechanics of engineering writing will not, of itself, bring improvement; provides simple student exercises to assist in the achievement of correctness, completeness, and comprehensibility. —RJT

497. Commentary; The practice of editing.
RESEARCH APPLIED IN INDUSTRY, XIV (8): 301 Aug. 1961.

Articles makes point that it is important for editors to be aware of the way literature is used by the reading public. Comment is made, however, that mass education is failing its responsibility to teach how to find information. —RJH

498. Industrial editing.
J. A. G. Croxson. CHEM. and IND. 1961, 1696-8.

Essay review of Bernard Smith's guide for editors of house journals (title not given), commissioned by the British Assoc. of Ind. Editors, calls the book a "must" not only for all concerned with editing, but also for ind. management. Stresses honesty and frankness in presenting announcements, and the art of knowing what to omit. —HO

499. Persuasion in engineering proposals.
R. B. MacAskill. IRE TRANS. ENG. WRITING & SPEECH. EWS-4 (2): 56-57 May 1961.

The article suggests several important methods by which an engineer writer may enhance his proposal in the eyes of the reader and future customer. Consideration is also given to the attitude the writer must take in order to write the successful proposal. —RJT

500. Taking the splatter out of your technical writing.
J. M. Carroll. IRE TRANS. ENG. WRITING & SPEECH. EWS-4 (2): 52-55 May 1961.

Identifies many of the more common splatter-expressions that creep into engineering writing. Based on a six-month study during which words and phrases deleted from articles published in "Electronics" magazine were accumulated and tabulated. —RJT

TRANSLATION

501. Chemico-Linguistics: computer translation of chemical nomenclature.
E. Garfield. NATURE 192 (4739:) 192 Oct. 14, 1961.

A brief description of a new method for mechanical translation of chemical names into chemical formulae. —RJH

502. La XIeme Conference Generale de l'UNESCO etudie les problems des relations et des echanges internationaux.
Edmond Cary. BABEL. 7 (1): 3-12 1961.

A report of the eleventh general conference of UNESCO. Representatives of many countries give their views on the role of translation on the cultural and scientific exchange between countries. —CEK

503. Reproduction of illustrations for translations of technical articles, with particular reference to photo-offset-lithography.
M. Wright. ASLIB PROC. 13 (9): 232-237. Sept., 1961.

Methods used at the Iron and Steel Institute for reproduction, treatment of captions, and general arrangement. Some notes on costs are also given. —FWL

504. Die Ruckubertragung nichtrussischer Namen aus der russichen in die lateinische Schrift.
J. G. Podborny. BABEL. 7 (1): 13-23 1961.

Deals with the vexing problem of the translation of Russian versions of non-Russian names. Contains tables of sounds, their Cyrillic transcriptions, and the corresponding German, French, English and Dutch retranscriptions. —CEK

505. Technical translations: Making the master.
J. B. Reed. ASLIB PROC. 13 (9): 228-231 Sept., 1961.
Methods used at DSIR to produce a single, satisfactory, and complete English version of a foreign paper for use and possibly for copying. —FWL

506. Translating and Re-Jargonizing the Little-Languages of Science.
Jack De Ment. JOUR. CHEM. ED., 38 (8), 415-418 (Aug. 1961).
Science is not useful unless it can be communicated. The importance of retranslating the jargon of a branch of science to language understandable to scientists in other branches or further into universal or even popular language is an important service to science itself. Many amusing examples point up the problem. —MCP

507. The translation problem in science.
M. Phillips. REV. DOC. (The Hague) 28 (2): 52-55, May, 1961.
The distribution of language in the demand for translations, cooperative schemes, costs, and "cover to cover" translations are discussed. —RLS

508. Translations of Russian scientific and technical literature in Western countries.
A. Frank. REV. DOCUMENT. (The Hague) 28 (2): 47-51, May, 1961.
A review of private, national and international translation organizations and activities. —RLS

509. Transliteration Codes and their International Standardization.
R. Frontard UNESCO BULL. LIB. 15 (2) 78-82 March-April 1961.
A discussion of what has already been accomplished by the International Organization for Standardization, and what remains to be done. —DTH

USE OF INFORMATION

510. Communications in a complex world.
E. Finley Carter. SP. LIB. 52 (8) 445-8 Oct. 1961.
The president of Stanford Research Institute in his banquet address at the 52nd Annual SLA Convention discusses the role of communications as the central nervous system of society, impact of science and technology on librarianship, nontechnical problems facing the profession and the challenge of the future to all librarians. —JPO

511. Information technology and decentralization.
J. F. Burlingame. HARVARD BUS. REV. 39 (6): 121-126 November-December, 1961.
It is predicted, in this general article, that the increased use of computers in business will not interfere with the trend toward decentralization, nor will it cause a decrease of function of the "middle manager." —CEK

512. Introducing technical information into present educational curricula.
J. Farradane. REV. DOC. (The Hague) 28 (2): 41-45, May, 1961.
Proposals for training future scientists and management in the sources and applications of information. —RLS

513. Library and laboratory: partners in research.
H. S. Sharp. IRE TRANS. ENG. WRITING & SPEECH. EWS-4 (2): 58-61 May 1961.
Duplication of research effort can be prevented when a literature search is made before starting laboratory work. The role of the librarian in assisting the engineer-researcher is discussed, and the services which can be expected of the librarian are stated. —RJT

514. Management information crisis.
R. D. Daniel. HARVARD BUS. REV. 39 (5): 111-121. September-October, 1961.
Today many leading companies are suffering a major crisis, without fully realizing that it is caused by too rapid organizational change. Developments in management information systems will influence what the executive is able to do and will control how well he is able to do it. —CEK

515. Needed: Curriculum Reform.
S. D. Truelson, Jr., BULL. MED. LIBRARY ASSOC. 49: 635-6 (1961).
Guest editorial, touching on responsibilities with techniques, and aims in familiarizing med. students with the professional lit. of their field. —HO

Dear Frank:

During the Special Libraries National Convention in San Francisco, May 1961, the San Diego Chapter of SLA was invited to prepare loan compendia of outstanding engineering library bulletins as reported in SPECIAL LIBRARIES, April 1961. We plan on first selecting the best 15 or 20 engineering library bulletins that can be reviewed, later asking the originators for six copies of their bulletins, and finally preparing six identical compendia that can be loaned to SLA Chapters. We know librarians the world over have a universal interest in improving their services and this is one way to see how others are doing this most important library function. We invite all engineering librarians, where ever they are, to submit samples of their accessions lists, book lists, document lists, abstract bulletins, or library bulletins. Should the publications contain property or classified information, please delete such entries and send the bulletin skeleton. We are looking for original, effective, efficient formats to exhibit. We will use the original 123 bulletins for a selection base, but if you missed the original survey, or if you have recently changed the format of your publications, please send samples to:

General Dynamics/Convair
P. O. Box 1950
San Diego 12, California
ATTN: K. G. Blair, Chairman
Bulletin Review Panel
Mail Zone 50-03

All entries will have to be received by 15 April 1962. A sample compendia will be displayed 27-31 May at the SLA National Convention in Washington, D. C.

Very truly yours,
K. G. Blair, Chairman
Bulletin Review Panel

SCIENCE-TECHNOLOGY SERIALS

Compiled by
ANDREW S. GLICK, Editor

It is with deep regret that the Editor has to accept the resignation of Andrew Glick as Editor of New Science-Technology Serials. Andy has done an outstanding job in calling these new titles to your attention. If any of you would like to assist the new unnamed Editor, please send information to me in Sherman Oaks, Calif.

Frank G. Bennett IV

APPLIED THERAPEUTICS
V. 1, no. 1, monthly, $12.00
Seccombe House, Toronto 7, Canada
A prototype issue published Sept. 1959 to register title.

BRITISH TECHNOLOGY OF INDEX
V. 1, no. 1, Jan. 1962, monthly, $50
Library Assn., London W. C., England
A cumulative indext to British tech. per. and guide to latest developments in British technology. Listed alphabetically by subject, there will be a cumulated annual volume.

BULL. OF THE USSR ACAD. OF SCIENCES —MATH. SERIES
V. 1, no. 1, Nov. '61, bimonthly, $35
Science Pub., Inc, N. Y.
Translation of Soviet publication of interest to mathematicians.

CORROSION SCIENCE
V. 1, no. 1, Jan. 1962, quarterly, $20
Pergamon Press, New York
An international journal which will contain original papers, short notes and critical reviews.

ECONOMIC GEOLOGY — USSR
V. 1, no. 1, Nov. 1961, triannually, $60
Pergamon Press, New York
Will contain selected translated papers from the Russian journal GEOLOGIA RUDNEKH MESTROROZH DENII in the fields of current theoretical and practical investigations in the geology of metaliferous deposits in Russia.

EXPERIMENTAL AND MOLECULAR PATHOLOGY
V. 1, no. 1, Jan. 1961, bimonthly
Academic Press, New York
Will be devoted to original papers of the application of traditional and newer techniques of analytical chemistry, chemistry, pharmacology, toxicology and electron microscopy, and to problems of human and animal pathology.

INORGANIC CHEMISTRY
V. 1, no. 1, Feb. 1962, quarterly, approx. 800p.
Sub: $11.00 ASC members; $22.00 to others
American Chemical Soc., Washington, D. C.

INTERNATIONAL CHEMICAL ENGINEERING
V. 1, no. 1, Oct. 1961, quarterly
American Institute of Chemical Engineers, New York

INTERNATIONAL JNL. OF COMPUTER MATHEMATICS
V. 1, no. 1, Jan. '62, bimonthly
Science Publishers, Inc., N. Y.
For mathematicians concerned with computer research and development. Incorporate articles and abbreviations for new SOVIET JNL. OF COMPUTER MATH. & MATH PHY.

INTERNATIONAL SCIENCE AND TECHNOLOGY
V. 1, no. 1, Jan. 1962, monthly
The journal will report, review, and interpret the industrial significance of developments in advanced areas of technology and science. Will include all areas of science relating to industrial progress.

JOURNAL OF MEDICINAL & PHARMACEUTICAL CHEMISTRY
Ownership and publishers changed from Interscience to ACS in Jan. 1962. Vols. 1-4 available, $15 ea. from Interscience. 1962 subs. avail, $10 to members and $20 to nonmembers.

JOURNAL. OF NURSING EDUCATION
V. 1, no. 1, Jan. '62, quarterly
McGraw-Hill, New York
Journal will be about nursing education, written for directors, administrators and faculties of nursing schools. Reviews of nursing books, health books and other books on education and practice in the field.

MATHEMATICAL SYMPOSIUM OF THE USSR ACADEMY OF SCIENCE
V. 1, no. 1, Nov. '61, monthly, $60
Science Publishers, Inc., N. Y.
Translation of Soviet publication of interest to mathematicians.

PROGRESS IN MEDICINAL CHEMISTRY
V. 1, 1961; $11.25; 272p.
Buttersworth, London

PURE AND APPLIED CHEMISTRY
V. 1, no. 1, irreg., no. 1-4, $18.00
Buttersworths, London SW7, Eng.
The official journal of the International Union of pure and applied chemistry.

RADIO ENGINEERING
12 issues & 1 vol.; approx. 1,100p.
American Inst. of Elect. Eng., N. Y.
Publication of the A. S. Popov Technical Society of Radio Engineering and Telecommunications. Sub. Individuals $14.25; libraries $28.50. Current vol. 16, 1961.

SCI-TECH NEWS

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